

# Magnet Project API Documentation

## Route Authentication & Role Protection Summary

Module	Route/Action	Public	Auth Required	Role(s) Required
Products	GET /api/products	Yes	No	None
	POST /addProductsByBusiness	No	Yes	business
	POST /addProductsByMagnet_employee	No	Yes	magnet_employee, admin
	PUT /products/:id	No	Yes	business (own), admin, magnet_employee
	DELETE /products/:id	No	Yes	business (own), admin, magnet_employee
	PUT /products/:id/approve	No	Yes	admin, magnet_employee
	PUT /products/:id/decline	No	Yes	admin, magnet_employee
Categories	GET /api/categories	Yes	No	None
	POST /api/categories	No	Yes	business, admin, magnet_employee
	PUT /api/categories/:id	No	Yes	business, admin, magnet_employee
	DELETE /api/categories/:id	No	Yes	business, admin, magnet_employee
Orders	POST /api/orders	No	Yes	customer
	GET /api/orders/my	No	Yes	customer
	GET /api/orders/:id	No	Yes	admin, magnet_employee, customer (own)
	GET /api/orders	No	Yes	admin, magnet_employee
	PUT /api/orders/:id/status	No	Yes	admin, magnet_employee
Reviews	POST /products/:id/reviews	No	Yes	customer
	GET /products/:id/reviews	Yes	No	None
	DELETE /reviews/:id	No	Yes	admin, magnet_employee
Wishlist	GET /api/wishlist	No	Yes	customer
	POST /api/wishlist	No	Yes	customer

Module	Route/Action	Public	Auth Required	Role(s) Required
User	DELETE /api/wishlist/:productId	No	Yes	customer
	GET /api/user/profile	No	Yes	customer
	PUT /api/user/profile	No	Yes	customer
	GET /api/user/business-requests	No	Yes	admin, magnet_employee
	POST /api/user/business-approval	No	Yes	admin, magnet_employee
	GET /api/user/business/:businessId	No	Yes	admin, magnet_employee
Auth	GET /api/user/business-profile	No	Yes	business, admin, magnet_employee
	Registration/Login/OTP	Yes	No	None
	Forgot Password	No	Yes	Any authenticated user

Notes

- **Auth Required:** Requires a valid JWT token in the **Authorization** header.
- **Role(s) Required:** Requires the user to have one of the listed roles. If "(own)" is specified, the user must own the resource (e.g., their own product or order).
- **Public:** Anyone can access, no authentication required.
- **All:** All HTTP methods (GET, POST, PUT, DELETE) for that endpoint.
- **Business (if owns product in order):** Business user can access if any product in the order is owned by them (see order tracking section).

Each module's section below should reference this table for route protection. For details on request/response, see the rest of the documentation.

Authentication & User Management APIs

Message Format

All API responses now return bilingual messages in both English and Arabic for every endpoint, including all errors and successes. The system uses a centralized messages.js file to ensure consistency across all modules (auth, user, product, order, address, category, review, wishlist, etc.).

```
{
  "status": "success",
  "message": {
```

```
"en": "User registered successfully",
"ar": "تم تسجيل المستخدم بنجاح"
},
"data": { ... }
}
```

- All error and success messages are bilingual.
  - If you add new features, add their message keys to messages.js for full support.
- 

## Verification Rules

### Phone Number Verification

- **If phone number is provided:** Only the phone is verified (`isPhoneVerified = true`, `isEmailVerified = false`)
- **If no phone number is provided:** Only the email is verified (`isEmailVerified = true`, `isPhoneVerified = false`)

This applies to both customer and business registration.

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## Auth Routes

### 1. Register User

- **POST** `/api/auth/register`
  - **Description:** Register a new customer user with automatic verification based on phone number presence.
  - **Body:**
    - `firstname` (string, required)
    - `lastname` (string, required)
    - `email` (string, required)
    - `phone` (string, optional)
    - `password` (string, required)
    - `country` (string, required)
    - `language` (string, optional, default: 'en')
  - **Verification Logic:**
    - If `phone` is provided: `isPhoneVerified = true`, `isEmailVerified = false`
    - If `phone` is not provided: `isEmailVerified = true`, `isPhoneVerified = false`
  - **Response:**
    - **201 Created:** User info + JWT token with verification status
- 

### 2. Register Business

- **POST** `/api/auth/business-register`
- **Description:** Register a new business user (requires approval) with automatic verification based on phone number presence.

- **Body:**
    - `firstname, lastname, email, password, crNumber, vatNumber, companyName, companyType, country, city, district, streetName, phone` (all required)
  - **Verification Logic:**
    - If `phone` is provided: `isPhoneVerified = true, isEmailVerified = false`
    - If `phone` is not provided: `isEmailVerified = true, isPhoneVerified = false`
  - **Response:**
    - **201 Created:** Business info (under review) with verification status
- 

### 3. Send Email OTP

- **POST** `/api/auth/send-email-otp`
  - **Description:** Send an OTP to a new email (fails if email already exists).
  - **Body:**
    - `email` (string, required)
  - **Response:**
    - **200 OK:** Success message (bilingual)
- 

### 4. Send Phone OTP

- **POST** `/api/auth/send-phone-otp`
  - **Description:** Send an OTP to a new phone (fails if phone already exists).
  - **Body:**
    - `phone` (string, required)
  - **Response:**
    - **200 OK:** Success message (bilingual)
- 

### 5. Confirm OTP

- **POST** `/api/auth/confirm-otp`
  - **Description:** Confirm an OTP for any email or phone identifier (works for both registered and non-registered users).
  - **Body:**
    - `identifier` (string, required)
    - `otp` (string, required)
  - **Response:**
    - **200 OK:** OTP verified successfully (bilingual message)
- 

### 6. Confirm Login OTP

- **POST** `/api/auth/confirm-login-otp`
- **Description:** Confirm an OTP for registered users and return user data with JWT token (like login API).
- **Body:**
  - `identifier` (string, required)
  - `otp` (string, required)

- **Response:**
    - **200 OK:** User info + JWT token (bilingual message)
    - **404 Not Found:** User not found (bilingual message)
- 

## 7. Login

- **POST** `/api/auth/login`
  - **Description:** Login with email/phone and password.
  - **Body:**
    - **identifier** (email or phone, required)
    - **password** (string, required)
  - **Response:**
    - **200 OK:** User info + JWT token (bilingual message)
- 

## 8. Login with OTP

- **POST** `/api/auth/login-with-otp`
  - **Description:** Request an OTP for login (email or phone).
  - **Body:**
    - **identifier** (email or phone, required)
  - **Response:**
    - **200 OK:** OTP sent (bilingual message)
- 

## 9. Forgot Password

- **POST** `/api/auth/forgot-password`
  - **Description:** Change password for authenticated user.
  - **Headers:** **Authorization:** **Bearer** `<token>`
  - **Body:**
    - **newPassword** (string, required)
  - **Response:**
    - **200 OK:** Password updated (bilingual message)
- 

## 10. Create Admin User

- **POST** `/api/auth/create-admin`
- **Description:** Create a new admin user. Only accessible by authenticated admin users.
- **Headers:** **Authorization:** **Bearer** `<token>`
- **Body:**
  - **firstname** (string, required)
  - **lastname** (string, required)
  - **email** (string, required)
  - **phone** (string, optional)
  - **password** (string, required)
  - **country** (string, required)

- **language** (string, optional, default: 'en')
  - **Response:**
    - **201 Created:** Admin user info (bilingual message)
    - **403 Forbidden:** Insufficient permissions (bilingual message)
    - **400 Bad Request:** Email/phone already registered (bilingual message)
- 

## 11. Create Magnet Employee User

- **POST** `/api/auth/create-magnet-employee`
  - **Description:** Create a new magnet employee user. Only accessible by authenticated admin users.
  - **Headers:** **Authorization:** `Bearer <token>`
  - **Body:**
    - **firstname** (string, required)
    - **lastname** (string, required)
    - **email** (string, required)
    - **phone** (string, optional)
    - **password** (string, required)
    - **country** (string, required)
    - **language** (string, optional, default: 'en')
  - **Response:**
    - **201 Created:** Magnet employee user info (bilingual message)
    - **403 Forbidden:** Insufficient permissions (bilingual message)
    - **400 Bad Request:** Email/phone already registered (bilingual message)
- 

## Product Routes

### 1. Get Products

- **GET** `/api/products`
- **Description:** Get all approved products (public, any user can call). Admin/magnet\_employee can see all products.
- **Response:**
  - **200 OK:** List of products
- **Product Object:**
  - **code** (string, auto-generated if not provided, e.g. "A001")
  - **category** (string, required)
  - **name** (string, required)
  - **images** (array of strings)
  - **description** (string)
  - **color** (string)
  - **features** (string)
  - **unit** (string)
  - **minOrder** (number)
  - **pricePerUnit** (string)
  - **stock** (number)
  - **accessories** (string)

- **customFields** (array of objects, min 5, max 10, each: { **key**, **value** })
  - **status** (string: 'pending', 'approved', 'declined')
  - **owner** (user id, required)
  - **approvedBy** (user id, admin/employee who approved)
  - **createdAt** (date)
- 

## 2. Add Product (Business)

- **POST** `/api/products/addProductsByBusiness`
  - **Description:** Business user adds a new product (pending approval). Product code is auto-generated if not provided.
  - **Headers:** `Authorization: Bearer <token>`
  - **Body:**
    - **category** (string, required)
    - **name** (string, required)
    - **images** (array of strings, optional)
    - **description**, **color**, **features**, **unit**, **minOrder**, **pricePerUnit**, **stock**, **accessories** (all optional)
    - **customFields** (array of objects, min 5, max 10, each: { **key**, **value** }, required)
  - **Response:**
    - **201 Created:** Product info (pending approval) with bilingual message
- 

## 3. Add Product (Magnet Employee)

- **POST** `/api/products/addProductsByMagnet_employee`
  - **Description:** Magnet employee adds a new product (approved immediately). Product code is auto-generated if not provided.
  - **Headers:** `Authorization: Bearer <token>`
  - **Body:**
    - **category** (string, required)
    - **name** (string, required)
    - **images** (array of strings, optional)
    - **description**, **color**, **features**, **unit**, **minOrder**, **pricePerUnit**, **stock**, **accessories** (all optional)
    - **customFields** (array of objects, min 5, max 10, each: { **key**, **value** }, required)
    - **owner** (user id, required)
  - **Response:**
    - **201 Created:** Product info (approved) with bilingual message
- 

## 4. Update Product

- **PUT** `/api/products/:id`
- **Description:** Business user updates their own product (pending approval). Admin/magnet\_employee can update and approve/decline.
- **Headers:** `Authorization: Bearer <token>`

- **Body:**
    - Any product field (see above)
    - **status** (optional, only admin/magnet\_employee can set to 'approved' or 'declined')
  - **Response:**
    - **200 OK:** Updated product info with bilingual message
- 

## 5. Delete Product

- **DELETE** `/api/products/:id`
  - **Description:** Business user deletes their own product, or admin/employee deletes any product.
  - **Headers:** **Authorization:** `Bearer <token>`
  - **Response:**
    - **200 OK:** Product deleted with bilingual message
- 

## 6. Approve Product

- **PUT** `/api/products/:id/approve`
  - **Description:** Admin/magnet\_employee approves a product.
  - **Headers:** **Authorization:** `Bearer <token>`
  - **Response:**
    - **200 OK:** Product approved with bilingual message
- 

## 7. Decline Product

- **PUT** `/api/products/:id/decline`
  - **Description:** Admin/magnet\_employee declines a product.
  - **Headers:** **Authorization:** `Bearer <token>`
  - **Response:**
    - **200 OK:** Product declined with bilingual message
- 

# Real-Time Order Tracking (WebSocket)

## Overview

- The API supports real-time order status updates using WebSocket (Socket.IO).
- Clients can subscribe to updates for specific orders and receive instant notifications when the order status changes (e.g., confirmed, shipped, delivered).

## How It Works

1. **Client authenticates with a JWT token when connecting to the WebSocket.**
2. **Client joins a room for a specific order using the order ID.**
3. **When the order status changes, the server emits an `orderStatusUpdate` event to all clients in that room.**

## WebSocket Connection (Socket.IO)



- **URL:** `ws://<your-server>:5000` (or `wss://` for HTTPS)
- **Library:** `socket.io-client`

### Client Example (JavaScript/React):

```
import { io } from 'socket.io-client';
const socket = io('http://localhost:5000', {
  auth: { token: '<JWT_TOKEN>' }
});

// Join the order room
socket.emit('joinOrderRoom', '<ORDER_ID>');

// Listen for updates
socket.on('orderStatusUpdate', (data) => {
  // data: { orderId, status, statusLog, updatedAt }
  console.log('Order update:', data);
});
```

### Order Room Access Rules

- **Admin & magnet\_employee:** Can track any order.
- **Business:** Can track orders that include products they own.
- **Customer:** Can track only their own orders.
- Unauthorized attempts to join order rooms will be ignored.

### Server-Side Security

- The server authenticates each socket connection using the JWT token.
- The server enforces the above access rules for joining order rooms.

### Order Status Update Event

- **Event:** `orderStatusUpdate`
- **Payload:**

```
{
  "orderId": "...",
  "status": "shipped",
  "statusLog": [
    { "status": "pending", "timestamp": "..." },
    { "status": "confirmed", "timestamp": "..." },
    { "status": "shipped", "timestamp": "..." }
  ],
  "updatedAt": "2024-07-10T12:00:00.000Z"
}
```

## Security Notes

- Clients must provide a valid JWT token when connecting.
  - The server will only allow joining order rooms for orders the user is authorized to track (see access rules above).
  - Unauthorized attempts to join rooms will be ignored.
- 

## Category Routes

### 1. Get Categories

- **GET** `/api/categories`
- **Description:** Get all categories (public).
- **Response:**
  - **200 OK:** List of categories

### 2. Create Category

- **POST** `/api/categories`
- **Description:** Create a new category (business, admin, or magnet\_employee only).
- **Headers:** `Authorization: Bearer <token>`
- **Body:**
  - `name` (string, required)
- **Response:**
  - **201 Created:** Category info (bilingual message)

### 3. Update Category

- **PUT** `/api/categories/:id`
- **Description:** Update a category (business, admin, or magnet\_employee only).
- **Headers:** `Authorization: Bearer <token>`
- **Body:**
  - `name` (string, required)
- **Response:**
  - **200 OK:** Updated category info (bilingual message)

### 4. Delete Category

- **DELETE** `/api/categories/:id`
  - **Description:** Delete a category (business, admin, or magnet\_employee only).
  - **Headers:** `Authorization: Bearer <token>`
  - **Response:**
    - **200 OK:** Category deleted (bilingual message)
- 

## Order Routes

### 1. Create Order

- **POST** `/api/orders`
- **Description:** Create a new order (customer only).
- **Headers:** `Authorization: Bearer <token>`
- **Body:**
  - Order details (see order model)
- **Response:**
  - **201 Created:** Order info (bilingual message)

## 2. Get My Orders

- **GET** `/api/orders/my`
- **Description:** Get all orders for the authenticated customer.
- **Headers:** `Authorization: Bearer <token>`
- **Response:**
  - **200 OK:** List of orders (bilingual message)

## 3. Get Order by ID

- **GET** `/api/orders/:id`
- **Description:** Get order by ID (admin, magnet\_employee, or owner).
- **Headers:** `Authorization: Bearer <token>`
- **Response:**
  - **200 OK:** Order info (bilingual message)

## 4. Get All Orders

- **GET** `/api/orders`
- **Description:** Get all orders (admin, magnet\_employee only).
- **Headers:** `Authorization: Bearer <token>`
- **Response:**
  - **200 OK:** List of orders (bilingual message)

## 5. Update Order Status

- **PUT** `/api/orders/:id/status`
- **Description:** Update order status (admin, magnet\_employee only).
- **Headers:** `Authorization: Bearer <token>`
- **Body:**
  - `status` (string, required)
- **Response:**
  - **200 OK:** Updated order info (bilingual message)

---

## Address Routes

### 1. Get Addresses

- **GET** `/api/addresses`
- **Description:** Get all addresses for the authenticated customer.

- **Headers:** `Authorization: Bearer <token>`
- **Response:**
  - `200 OK`: List of addresses (bilingual message)

## 2. Add Address

- **POST** `/api/addresses`
- **Description:** Add a new address (customer only).
- **Headers:** `Authorization: Bearer <token>`
- **Body:**
  - Address details (see address model)
- **Response:**
  - `201 Created`: Address info (bilingual message)

## 3. Update Address

- **PUT** `/api/addresses/:id`
- **Description:** Update an address (customer only).
- **Headers:** `Authorization: Bearer <token>`
- **Body:**
  - Address details (see address model)
- **Response:**
  - `200 OK`: Updated address info (bilingual message)

## 4. Delete Address

- **DELETE** `/api/addresses/:id`
- **Description:** Delete an address (customer only).
- **Headers:** `Authorization: Bearer <token>`
- **Response:**
  - `200 OK`: Address deleted (bilingual message)

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## Wishlist Routes

### 1. Get Wishlist

- **GET** `/api/wishlist`
- **Description:** Get the authenticated customer's wishlist.
- **Headers:** `Authorization: Bearer <token>`
- **Response:**
  - `200 OK`: List of wishlist items (bilingual message)

### 2. Add to Wishlist

- **POST** `/api/wishlist`
- **Description:** Add a product to the authenticated customer's wishlist.
- **Headers:** `Authorization: Bearer <token>`
- **Body:**

- **productId** (string, required)
- **Response:**
  - **201 Created:** Wishlist item info (bilingual message)

### 3. Remove from Wishlist

- **DELETE** `/api/wishlist/:productId`
  - **Description:** Remove a product from the authenticated customer's wishlist.
  - **Headers:** `Authorization: Bearer <token>`
  - **Response:**
    - **200 OK:** Wishlist item removed (bilingual message)
- 

## Review Routes

### 1. Add Review

- **POST** `/api/products/:id/reviews`
- **Description:** Add a review to a product (customer only).
- **Headers:** `Authorization: Bearer <token>`
- **Body:**
  - Review details (see review model)
- **Response:**
  - **201 Created:** Review info (bilingual message)

### 2. Get Product Reviews

- **GET** `/api/products/:id/reviews`
- **Description:** Get all reviews for a product (public).
- **Response:**
  - **200 OK:** List of reviews (bilingual message)

### 3. Delete Review

- **DELETE** `/api/reviews/:id`
  - **Description:** Delete a review (admin or magnet\_employee only).
  - **Headers:** `Authorization: Bearer <token>`
  - **Response:**
    - **200 OK:** Review deleted (bilingual message)
- 

## User Routes

### 1. Get User Profile

- **GET** `/api/user/profile`
- **Description:** Get the authenticated customer's profile.
- **Headers:** `Authorization: Bearer <token>`
- **Response:**
  - **200 OK:** User profile info (bilingual message)

## 2. Update User Profile

- **PUT** `/api/user/profile`
- **Description:** Update the authenticated customer's profile.
- **Headers:** `Authorization: Bearer <token>`
- **Body:**
  - Profile details (see user model)
- **Response:**
  - **200 OK:** Updated profile info (bilingual message)

## 3. Get Business Registration Requests

- **GET** `/api/user/business-requests`
- **Description:** Get all business registration requests (admin, magnet\_employee only).
- **Headers:** `Authorization: Bearer <token>`
- **Response:**
  - **200 OK:** List of business requests (bilingual message)

## 4. Approve/Reject Business Registration

- **POST** `/api/user/business-approval`
- **Description:** Approve or reject a business registration (admin, magnet\_employee only).
- **Headers:** `Authorization: Bearer <token>`
- **Body:**
  - Approval details (see business approval model)
- **Response:**
  - **200 OK:** Approval/rejection result (bilingual message)

## 5. Get Business Details by ID

- **GET** `/api/user/business/:businessId`
- **Description:** Get business details by ID (admin, magnet\_employee only).
- **Headers:** `Authorization: Bearer <token>`
- **Response:**
  - **200 OK:** Business details (bilingual message)

## 6. Get Business Profile

- **GET** `/api/user/business-profile`
- **Description:** Get the business profile (business, admin, or magnet\_employee only).
- **Headers:** `Authorization: Bearer <token>`
- **Response:**
  - **200 OK:** Business profile info (bilingual message)

---

## Response Examples

### Success Response

```
{
  "status": "success",
  "message": {
    "en": "Product added successfully",
    "ar": "تمت إضافة المنتج بنجاح"
  },
  "data": {
    "product": {
      "code": "A001",
      "category": "Electronics",
      "name": "Smartphone",
      "images": ["https://example.com/image1.jpg"],
      "description": "A great phone",
      "color": "Black",
      "features": "Waterproof, Dual SIM",
      "unit": "piece",
      "minOrder": 1,
      "pricePerUnit": "1000",
      "stock": 50,
      "accessories": "Charger, Earphones",
      "customFields": [
        { "key": "Warranty", "value": "2 years" },
        { "key": "Origin", "value": "Japan" },
        { "key": "Battery", "value": "4000mAh" },
        { "key": "Screen", "value": "6.5 inch" },
        { "key": "Weight", "value": "180g" }
      ],
      "status": "pending",
      "owner": "60f7b3b3b3b3b3b3b3b3b3b3",
      "approvedBy": null,
      "createdAt": "2024-07-10T12:00:00.000Z"
    }
  }
}
```

## Error Response

```
{
  "status": "error",
  "message": {
    "en": "Must provide 5-10 custom fields",
    "ar": "يجب توفير 5 إلى 10 حقول مخصصة"
  }
}
```

## Notes

- All endpoints require authentication unless stated otherwise.

- Role-based access is enforced for some endpoints (Admin, Employee, Business, Customer).
  - For endpoints that update or approve/decline, validation middleware is used.
  - **All API responses now include bilingual messages in English and Arabic.**
  - **Verification status is automatically set during registration based on phone number presence.**
  - **Product codes are auto-generated in the format A001, A002, ... if not provided.**
  - **Products require 5–10 custom fields (key/value pairs).**
  - **The GET and PUT `/api/user/profile` endpoints are protected by the `requireCustomer` middleware, allowing only users with the 'customer' role to access them.**
- 

For more details or example requests, refer to the code or request further examples.